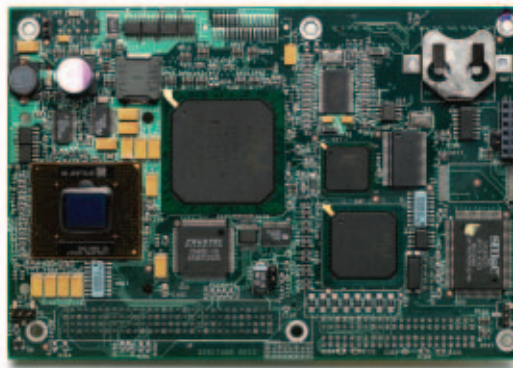


EnCore™ 700 Embedded Processor

High-integration, high-performance, Pentium® III- or Celeron™ -based embedded processor



FEATURES

- 850MHz Intel® Low Power Pentium III or 300MHz Low Power Celeron Processors
- High Integration Intel 815EM Chipset
- 16-512MB SODIMM SDRAM
- 33MHz PCI Bus interface
- EIDE (2) drive interface, ATAPI including DVD
- Two Serial ports, Floppy, ECP/EPP Parallel port
- (4) USB, IrDA, PS/2 Keyboard/Mouse, AC97 Sound
- 10/100BaseT Ethernet interface
- 2D/3D CRT and TFT Flat Panel interface

The EnCore™ 700 embedded processor is an ultra high performance EnCore module with embedded features for today's demanding environments. It is a high-integration Intel-based CPU designed to plug into your application-specific logic board. Based on a choice of 850MHz Low Power Pentium® III or 300MHz Low Power Celeron™ processors, the EnCore 700 gives you a powerful and complete embedded CPU subsystem in a 100x145mm format. EnCore 700 with the Celeron CPU operates without a fan at both standard and extended operating temperature range of -40° to +85°C.

Each EnCore 700 incorporates the new Intel 815em chipset and provides two serial ports, EPP/ECP parallel port, four USB UHCI ports, PS/2 keyboard and mouse interfaces, floppy and Ultra/DMA 33/66/100 IDE controllers, 10/100BaseT Ethernet interface and an AC97 audio interface. EnCore 700 supports up to 512MB SODIMM SDRAM, and interfaces to your application-specific logic board using a 33MHz PCI bus. EnCore 700 also includes a 2D/3D graphics controller which provides both CRT, DFP and TFT flat panel video interfaces.

The EnCore 700 QuickStart Kit includes a baseboard reference design, sample baseboard and board support packages for popular operating systems. Finally, the EnCore 700 meets the high quality standard and ruggedized environment, including extended temperature specifications that you would expect from the inventor of PC/104 and EBX standards.



Processor

- 850MHz Low Power Pentium III or 300MHz Low Power Celeron Processors
- CPU Thermal Management
- **Chipset** – Intel 82815EM
- **System Controllers** – PC/AT compatible
- **Real Time Clock** – With CMOS setup; onboard replaceable battery provided
- **Watchdog Timer**
- **Configuration EEPROM** – Supports batteryless boot capability
 - 4Kbits total capacity
 - 512 bits available for OEM use
- **BIOS** – System and Video BIOS with Ampro extensions in 512KB Flash device programmable on the board

Memory

- 100MHz, 3.3V PC100 SDRAM
- Socket for one SODIMM module, 144 pin
- 16-512MB SODIMM SDRAM

Bus Interface

- 32-bit, 33MHz PCI 2.1-compliant bus supports 4 devices (4 masters)

I/O – all connections to baseboard unless stated

- **EIDE** – Enhanced Ultra 33/66/100 Synchronous DMA IDE interface to two drives, ATAPI extensions including DVD
- **Serial** – Two TTL ports, one with full modem support
- **Parallel** – ECP/EPP bidirectional port also serves as floppy drive interface
- **USB** – Four USB Universal HCI ports
- **IRDA** – IrDA interface
- **Mouse/Keyboard** – PS/2 interface
- **Audio** – AC97, CODEC on the baseboard, SoundBlaster™ Pro and Direct Sound compatible

Network Interface

- **Ethernet** – integrated 10/100BaseT Ethernet (autosensing), interface and magnetics on baseboard

Video Interface

- **Controller** – Integrated 82815EM with Intel 82807AA VCH flat panel interface
- 64-bit single-cycle 2D/3D graphics engine
- 4MB UMA Frame Buffer
- CRT, Digital Flat Panel, TFT, and EL support
- Up to 16.7 million colors (24-bit true color)
- Programmable Flat Panel Support up to 1400x1050 resolution
- Allows external TMDS transmitter for advanced flat panel interfaces
- Supports both 3.3V and 5.0V LCD panels

Software & Development Tools

- Board Support Packages for popular Operating Systems – see Web site for current listings
- General Software BIOS with Ampro extensions

Mechanical

- **Size** – 100x145mm (3.94 x 5.70")
- **272-Pin Interface**
 - Industry-standard 120-pin PCI bus interface via PC/104-Plus compatible connector
 - 88-pin I/O interface (2x 44-pin connectors) for serial, parallel, sound, USB, keyboard, mouse, IrDA & utility
 - 10-pin Ethernet
 - 44-pin CRT and flat panel interface
 - Primary and secondary 10-pin power & ground
- **Power Requirements** (w/64MB RAM, 100% Loaded)

PENTIUM III	CELERON
1.76A @ 3.3V	1.69A @ 3.3V
0.13A @ 5V	0.11A @ 5V
1.40A @ 12V	0.22A @ 12V
- **Environmental** – Operating temperatures:
 - Pentium III: 0° to 50°C standard;
– 40° to +75°C extended
 - Celeron: 0° to 70°C standard;
– 40° to +85°C extended

EnCore 700 Functional Diagram

